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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/540,391 | 03/31/2000 | Mark Robins | SIEB-045/00US | 2190 |

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[REDACTED] EXAMINER

REAGAN, JAMES A

[REDACTED] ART UNIT

[REDACTED] PAPER NUMBER

3621

DATE MAILED: 07/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|------------------------|---------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/540,391 | ROBINS, MARK |
| | Examiner | Art Unit |
| | James A. Reagan | 3621 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 25 June 2002.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 15-17 and 23-28 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 15-17 and 23-28 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

Status of Claims

1. This Office action is in response to the Request for Continued Prosecution (paper #9) and the Preliminary Amendment (paper #11), both received on 25 June 2002.
2. The claims currently pending before this Office Action are numbers 15-17 and 23-28.
3. Claims 15, 17, and 23 have been amended (paper #11).
4. Claims 1-14 have been cancelled (paper #6).
5. Claims and 18-22 have been canceled (paper #11).
6. Claims 15-17 and 24-28 have been reviewed in this Office Action.

Previous Claim Rejections - 35 USC § 112

7. Claim 18 has been cancelled and the rejection is therefore moot and withdrawn.

Response to Arguments

8. Applicant's arguments with respect to claims 15, Microsoft Project, 17, 23, 24, 26, and 28 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Examiner's note: Examiner has pointed out particular references contained in the prior art of record in the body of this action for the convenience of the Applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply. Applicant, in preparing the response, should consider fully the *entire* reference as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

10. Claims 15, 16, 26, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over "User's Guide for Microsoft Project" (1995), herein referred to as "Microsoft Project", in view of "Using Microsoft Project 4" (1994), herein referred to as "Project 4."

Claim 15:

With regard to the limitation of:

- *entering a description of each of said product features, wherein said description comprises an instantiation of a feature list graphical user interface, Microsoft Project discloses descriptions of the tasks*

or features instantiated into the task list (Chapter 7, "How You Can Customize a View or Report" page 88).

- *defining a plurality of tasks, wherein each of said tasks is associated with one of said product features, the plurality of tasks being grouped into task types,* Microsoft Project discloses tasks and task types, grouped according to specific features (Chapter 7, "Printing a Custom Bar Chart Schedule (Gantt Chart)", page 91). Tasks (or features) are grouped into product development phases.
- *entering a task progress development as an instantiation of a task-type graphical user interface, wherein the task-type graphical user interface is selected from a plurality of task-type graphical user interfaces, each corresponding to one of the task types,* Microsoft Project discloses a graphical user interface (Chapter 7, "Printing a Custom Bar Chart Schedule (Gantt Chart)", page 91). Microsoft project also discloses task development progress (Chapter 7, "Printing a Custom Bar Chart Schedule (Gantt Chart)", page 91). Options between views (GUI's) are shown as Gantt chart (page 91), calendar (page 93), PERT Chart (page 95).
- *tracking a status of each product feature via the instantiated task-type graphical user interfaces,* Microsoft Project discloses task tracking and status (Chapter 7, "Printing a Custom Bar Chart Schedule (Gantt Chart)", page 91).

Microsoft Project does not specifically disclose *describing the product in terms of a plurality of product features*. However, it would have been obvious to modify Microsoft Project by replacing the **Summary Tasks** as shown in the Gantt chart with product features, and listing the tasks required to fulfill or complete the product features. Chapter 4 of Project 4 (pages 95-130) discloses detailed instruction regarding instantiating the project planner with tasks. On page 97, a typical Gantt chart is shown (Figure 4.1). Summary tasks are shown in bold and subordinate tasks are shown indented under their parent summary task (see page 188 for a full description). It would be obvious to modify Microsoft Project and replace a Summary Task with a product feature and then delineate associated product tasks beneath the Summary task. For example, consider a build to order computer sales operation. A customer may desire a particular processor, hard drive, RAM size, video card, etc. Summary features and associated tasks may appear on the Gantt chart as follows:

| | |
|---|------------|
| 1600 MHz Pentium processor | .3h |
| Remove existing processor | .1h |
| Install 1600 MHz Pentium processor | .1h |
| Send replaced processor to parts supply | .1h |
| Hard Drive – 20 Gbytes | .5h |
| Remove existing drive | .2h |
| Insert 20 Gbyte hard drive | .2h |
| Plug in cables | .1h |

| | |
|-------------------------------------|-----|
| Ram – 256 Mbytes | .3h |
| Remove existing memory | .1h |
| Insert 256 Mbyte stick | .1h |
| Send replaced stick to parts supply | .1h |

By using this outlining format, the features of the project can be instantiated into the Gantt chart. Since Microsoft Project places no restriction on the content of the Summary Task fields, any text entry may be placed into the field (Project 4, page 98, "Entering Tasks in the Gantt Chart). As demonstrated, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Microsoft Project by replacing the **Summary Tasks** as shown in the Gantt chart with product features, and listing the tasks required to fulfill or complete the product features below the product features. Outlining the project plan produces a Work Breakdown Structure (WBS) that not only lists the tasks necessary to implement a product feature, but also shows which features are incorporated into each product plan. This hierarchical structure identifies where each task fits into the project plan as a whole (see pages 96-97).

In addition, Microsoft Project does not specifically disclose *linking each of the plurality of tasks with one of the plurality of product features*. However, in light of the modification disclosed above, the tasks are inherently linked to the product feature as a hierarchical structure consisting of a product feature and its subordinate task.

Claim 16:

With regard to the limitation of:

- *linking all of the graphical user interfaces to one another via the features,* Microsoft Project discloses linking various Gantt charts from the project (Chapter 7, "Printing a Custom Bar Chart Schedule (Gantt Chart)", page 91). Selection (displaying) of the view is disclosed on page 117, "Displaying a View."

Claim 26:

With regard to the limitations of:

- *describing the product in terms of desired features of the product;*
- *defining, for each feature, a plurality of tasks necessary to implement the feature;*
- *linking each task with its corresponding feature; and*
- *entering data associated with a selected one of the plurality of tasks into a graphical user interface associated with the selected task,* see the rejection of claim 15 above.

Claim 27:

With regard to the limitation of:

- *selecting a graphical user interface displaying data associated with a task based on the feature associated with the task,* see the rejection of claim 15 above.

11. Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Microsoft Project/Project 4, further in view of Eisener, "The Essentials of Project and Systems Engineering Management" (1997).

Claim 23:

With regard to the limitation of:

- *a product feature list user interface by which a user enters desired features of the product to be released, see the rejection of claim 15 above.*
- *an engineer task list user interface by which the user enters and tracks information related to tasks being completed to implement the product features entered in the feature list user interface, wherein the tasks correspond to one of the product features, see the rejection of claim 15 above.*
- *a quality assurance user interface by which the user manages and tracks both quality assurance test plans and tests that are executed against the test plans and designed to ensure the functionality of the desired product features, see the rejection of claim 15 above.*
- *a technical documents list user interface by which the user enters and tracks information related to documents being developed to describe the desired product features, see the rejection of claim 15 above.*

- *wherein all parameters entered by the user into the engineer task list user interface, the quality assurance user interface and the technical documents list user interface are each defined in terms of a particular one of the product features entered into the feature list user interface, see the rejection of claim 15 above.*

As shown above, the combination of Microsoft Project/Project 4 discloses a graphical user interface, product features and tasks associated with said features, and tracking information. The combination of Microsoft Project/Project 4 also shows an engineering task list as shown above. The combination of Microsoft Project/Project 4 does not specifically disclose that the GUI task list/product feature list of the Gantt chart format could be modified to track quality assurance tasks, testing and evaluation tasks, or technical documentation tasks, and that the T&E, QA and documents tracking lists are associated with a particular product feature. However, Eisener, in "The Thirty elements of Systems Engineering" discloses Test and Evaluation, Quality Assurance, and Documentation (sections 703.19, 7.3.20, and 7.3.25). It would have been obvious to one of ordinary skill in the art at the time of the invention to track the old and well-known systems engineering elements of T&E, QA and Documentation in the Gantt chart as disclosed by Microsoft Project/Project 4. As shown above, any textual form can be listed as a product task, and linked with any product feature. Including Quality Assurance measures, technical documents and associated testing procedures as part of the project is an obvious

use of the project management software. By incorporating T&E, QA and Technical Documentation into the schedule all facets of the project are tracked to ensure on-time completion.

Claim 24:

With regard to the limitation of:

- *all parameters entered by the user into the engineer task list user interface, the quality assurance user interface and the technical documents list user interface are each linked to a particular one of the product features entered into the feature list user interface, see the rejection of claim 23 above.*

12. Claims 17 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Project/Project 4, further in view of Kroenke, "Database Processing: Fundamentals, Design, and Implementation" (1988), herein referred to as "Kroenke."

Claim 17:

With regard to the limitations of:

- *storing the feature descriptions, task definitions and task progress developments in a relational database, and*
- *linking each task definition and related task progress developments to their corresponding one of the plurality of product features through the use of relational database keys.*

The combination of Microsoft Project/Project 4 discloses saving files in a database format (Microsoft Project, Chapter 11, Importing and Exporting Files", page 141). Microsoft Project may be used with Microsoft Access, a relational database application (Microsoft Project, Chapter 11, Importing and Exporting Files", page 144). The combination of Microsoft Project/Project 4 does not specifically disclose linking the features in a relational database with the use of database keys. Kroenke, however, on pages 116 and 123 does disclose the use of keys and primary keys. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the project management tool of Microsoft Project/Project 4 with the relational database tool of utilizing primary keys as disclosed by Kroenke because primary keys uniquely identify features and tasks associated with a database which allow a user to quickly and efficiently search through large amounts of data to such as product definitions, milestones and schedules. As shown in the rejection of claim 15 above, a plurality of product features may be instantiated into the relational database/project plan. The tasks are inherently linked to the product feature as a hierarchical structure consisting of a product feature and its subordinate task.

Claim 28:

The combination of Microsoft Project/Project 4 discloses a project management tool that helps plan, manage, and communicate information about projects as shown in the rejection of Claim 26 above. The combination of Microsoft Project/Project 4 also discloses database properties, but does not

specifically disclose *storing the features, tasks and data in a relational database and linking the tasks and their associated data with their associated features by assigning a key to each feature, task and datum.* Kroenke, however, on pages 116 and 123 does disclose the use of keys and primary keys. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the project management tool of Microsoft Project/Project 4 with the relational database tool of utilizing linking keys and primary keys as disclosed by Kroenke because keys uniquely identify features and tasks associated with a database which allow a user to quickly and efficiently search through large amounts of data to such as product definitions, milestones and schedules.

13. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Project/Project 4/Eisener, further in view of Kroenke.

Claim 25:

Microsoft Project/Project 4/Eisener disclose the project planning software and project management techniques as shown in the rejection of Claim 23 above. Microsoft Project/Project 4/Eisener do not disclose *a relational database operable to store data entered into the interfaces, and further operable to filter the data based on the product features.* Kroenke, however, on pages 17 and 18 does disclose relational database model. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the project management tool of Microsoft Project/Project 4/Eisener with Kroenke's relational

database model because relational databases minimize duplicate data and processing errors as well as provide a powerful filtering tool capable of retrieving data quickly and accurately. In addition, it is old and well known in the database arts to search and filter instantiations of the database to retrieve desired information.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **James A. Reagan** whose telephone number is **(703) 306-9131**. The examiner can normally be reached on Monday-Friday, 9:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **James Trammel** can be reached at (703) 305-9768.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Receptionist** whose telephone number is **(703) 305-3900**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 305-7687 [Official communications; including

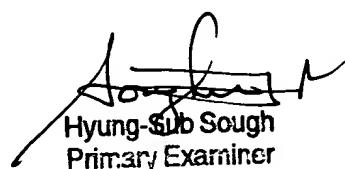
After Final communications labeled "Box AF"]

(703) 308-1396 [Informal/Draft communications, labeled
"PROPOSED" or "DRAFT"]

Hand delivered responses should be brought to Crystal Park 5, 2451
Crystal Drive, Arlington, VA, 7th floor receptionist.

JAR

17 July 2002



Hyung-Sub Sough
Primary Examiner